

AMENDMENTS TO THE SPECIFICATION

Paragraph [0030] on pages 9-10 of the specification is amended to read as follows:

a1 [0030] Finally, Figure 6 illustrates an alternative embodiment for the bitflip logic mechanisms 28 depicted in Figures 3-5. Instead of randomly inverting a bit passing through parallel data path 26 (and before being loaded into the first latch of shadow register 14), one or more bits may be inverted as they pass through the individual latches within shadow register 14. As shown in Figure 6, a control unit 50 is configured so as to provide control signals 52 to inverting devices located in front of each storage latch in shadow register 14. In one aspect, control unit 50 may be configured to invert a test bit ~~lat at a randomly~~ randomly selected location within shadow register 14. In another possible aspect, control unit 50 may be programmed as a decoder or counter such that only one bit at a time is inverted, but all bits eventually get inverted.

Paragraph [0031] on page 10 of the specification is amended to read as follows:

a2 [0030] As seen from the above described invention embodiments, certain logic that has been previously resistant to random pattern testing, such as compare circuits, may now be tested with desired test conditions. Rather than implementing a weighted random data generation scheme, which affects the value of the test data itself, the disclosed select mechanisms may be implemented so as to load identical, randomly generated data into any number of selected registers. On the other hand, this approach may also be used in conjunction with weighted random data to increase the frequency of comparing test data comprising mostly 1's or mostly 0's. It will be appreciated, from the above described embodiments, that logic which had only previously been "tested" with existing approaches, may also be exercised from a functional perspective. Not only is logic tested based upon modeled faults, but it is also tested on the functional operation of such (e.g., a ~~compare~~ compare function).